

WHAT IS CLAIMED IS:

1. A fluid dynamic bearing device, comprising:

a rotating member;

a stationary member;

a radial bearing portion for retaining the rotating member and the stationary member in a radial direction in a non-contact fashion by a dynamic pressure action of a fluid generated in a radial bearing gap between the rotating member and the stationary member; and

a thrust bearing portion for retaining the rotating member and the stationary member in a thrust direction in the non-contact fashion by a dynamic pressure action of the fluid generated in a thrust bearing gap between the rotating member and the stationary member,

wherein at least portions of the stationary member and the rotating member facing the thrust bearing gap are all formed of resins, and

wherein at least one of the resin portions is blended with reinforcement fibers of a fiber diameter of 1 to 12 μm as a filler.

2. A fluid dynamic bearing device according to Claim 1, wherein the reinforcement fibers are blended in the resin in an amount of 5 to 20 vol%.

3. A fluid dynamic bearing device according to Claim 1, wherein the filler further contains an electrical conductive agent.

4. A fluid dynamic bearing device according to any one of Claims 1 through 3, wherein the filler is blended in the resin in a total amount of 30 vol% or less.

5. A fluid dynamic bearing device according to Claim 1, wherein the reinforcement fibers are PAN-based carbon fibers.

6. A fluid dynamic bearing device according to Claim 1, wherein the resin portions of the stationary member and the rotating member facing the thrust bearing gap are formed of resin materials of different base resins.

7. A fluid dynamic bearing device according to Claim 1, wherein one of the resin portions of the stationary member and the rotating member facing the thrust bearing gap is formed of LCP.

8. A fluid dynamic bearing device according to Claim 1, wherein one of the resin portions of the stationary member and the rotating member facing the thrust bearing gap is formed of PPS.

9. A fluid dynamic bearing device according to Claim 1, wherein

the resin portion of the rotating member is a flange portion of a shaft member.

10. A fluid dynamic bearing device according to Claim 1, wherein the resin portion of the rotating member is a rotating member having a mounting portion for a rotor magnet.

11. A fluid dynamic bearing device according to Claim 1, comprising:

a shaft member provided as the rotating member;

a bearing sleeve into whose inner periphery the shaft member is inserted; and

a housing in which the bearing sleeve is fixed in position inside the housing,

the bearing sleeve and the housing being provided as the stationary member,

the housing having a portion facing the thrust bearing gap.

12. A fluid dynamic bearing device comprising:

a housing;

a bearing sleeve fixed in position inside the housing;

a rotating member making a relative rotation with respect to the bearing sleeve and the housing;

a radial bearing portion for supporting the rotating member

in a radial direction in a non-contact fashion by a dynamic pressure action of a lubricant generated in a radial bearing gap between the rotating member and the bearing sleeve; and

a thrust bearing portion for supporting the rotating member in a thrust direction in the non-contact fashion by a dynamic pressure action of the lubricant generated in a thrust bearing gap between the rotating member and the housing,

wherein the housing constitutes the thrust bearing portion and has a thrust bearing surface in which dynamic pressure grooves are formed and a fixation surface to which another metal member is fixed, and

wherein the housing has a portion including the thrust bearing surface and formed of a resin material, and a portion including the fixation surface formed of a metal material.

13. A fluid dynamic bearing device according to Claim 12, wherein the housing is formed through injection molding of a resin material, using the portion including the fixation surface formed of the metal material as an insert part.

14. A fluid dynamic bearing device according to Claim 12, wherein the housing has a cylindrical side portion, an opening situated at one end of the side portion, and a bottom portion situated at another end of the side portion, with the thrust bearing surface

being provided on a side of the opening.

15. A fluid dynamic bearing device according to Claim 12, wherein the housing has a cylindrical side portion, an opening situated at one end of the side portion, and a bottom portion situated at the other end of the side portion, with the thrust bearing surface being provided on a side of the bottom portion.

16. A motor comprising:

a fluid dynamic bearing device according to Claim 1 or 12;

a rotor magnet; and

a stator coil.